

**CLAIMS**

1. A heat exchanger of a ventilating system, comprising:

a plurality of heat exchange plates which are laminated at a predetermined interval;

5 a first heat exchange portion which is positioned among the heat exchange plates and through which outdoor air passes; and

a second heat exchange portion which is positioned among the heat exchange plates in turn with the first heat exchange portion and through which indoor air passes,

10 wherein the first and second heat exchange portions are composed of a plurality of heat exchange members having a predetermined length, and an inner surface of one heat exchange member and an outer surface of the other heat exchange member are aligned to face each other.

15 2. The exchanger of claim 1, wherein the heat exchanging members are formed in a plate type in which waves having a predetermined height are formed at a regular interval.

20 3. The exchanger of claim 1, wherein the length of the heat exchanging members is 3mm~5mm so that generation of a boundary layer can be restrained.

4. A heat exchanger of a ventilating system, comprising:

a plurality of heat exchange plates which are laminated at a predetermined interval;

a first heat exchange portion which is positioned among the heat exchange plates and through which outdoor air passes; and

5 a second heat exchange portion which is positioned among the heat exchange plates in turn with the first heat exchange portion and through which indoor air passes,

wherein the first and second heat exchange portions are composed of a plurality of heat exchange members having a predetermined length, and the heat  
10 exchange members are aligned at a predetermined interval.

5. The exchanger of claim 4, wherein the heat exchange members are formed in a plate type in which waves having a predetermined height are formed at a regular interval.

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6. The exchanger of claim 4, wherein a height D2 of a path through which air of the heat exchange members passes and an interval D1 among the heat exchange members are formed to satisfy a formula of  $10mm \leq D1 / D2 \leq 15mm$ .

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7. The exchanger of claim 1 or 4, wherein first partitions for closing the second heat exchange portion are attached on the both side surfaces of the heat exchanger through which the outdoor air passes, and second partitions for closing

the first heat exchange portion are attached on the other both side surfaces of the heat exchanger through which the indoor air passes.

8. A heat exchanger of a ventilating system, comprising:

5 a plurality of heat exchange plates which are laminated at a predetermined interval;

a first air path in which a plurality of embossing protrusions are formed among the heat exchange plates so that outdoor air passes; and

a second air path which is positioned in turn with the first air path, and in  
10 which a plurality of embossing protrusions are formed among the heat exchange plates.

9. The exchanger of claim 8, wherein first partitions for closing the second air path are attached on the both side surfaces of the heat exchanger  
15 which is opened by the first air path, and second partitions for closing the first air path are respectively attached on the other both side surfaces of the heat exchanger which is opened by the second air path.

10. The exchanger of claim 8, wherein the embossing protrusions are  
20 formed in a convex shape having a predetermined height.

11. The exchanger of claim 8, wherein the process of aligning the embossing protrusions of the first row at a predetermined interval, and

respectively aligning the embossing protrusions of the second row among the embossing protrusions of the first row is repeated.